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JOINT VISION 2010—CULTURAL IMPACTS OF PRECISION ENGAGEMENT

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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ABSTRACT

This paper addresses the cultural ramifications of the use of Precision Engagement in Joint Vision 2010. It begins by establishing that the war of 2010, as described in Joint Vision 2010 and the Concept for Future Joint Operations, will be significantly different than wars of the past. This will, in turn, have a new and unique impact on the 2010 warrior. The nature of the 2010 war is discussed against the backdrop of some of the causes of psychiatric casualties in war. The causes that are of specific interest are those that may be highly concentrated in future wars which utilize Precision Engagement. As each cause or potential cause of psychiatric casualty is addressed, the specific ramifications for the 2010 warrior are considered. The thesis is that the very concept of Precision Engagement by which we will defeat our enemy of the future, may indeed cause casualties in our own forces. This is not a psychology paper but rather a paper that is intended to spark debate and thought. It is hoped that the result will be a more carefully considered opinion of the direction of future doctrine. Ultimately, the goal is to incorporate the impact of our own doctrine into the preparation of our forces for war.

“If I had time and anything like your ability to study war, I think I should concentrate almost entirely on the “actualities of war”—the effects of tiredness, hunger, fear, lack of sleep, weather...The principles of strategy and tactics, and the logistics of war are really absurdly simple: it is the actualities that make war so complicated and so difficult, and are usually so neglected by historians.”

--Field Marshal Lord Wavell, in a letter to Liddell Hart¹

“...mass... contains both physical and moral elements.”

--Milan Vego²

INTRODUCTION

The debate over the future of warfare is as old as warfare itself. Volumes have been written hypothesizing about future methods of war-fighting, revolutions in military affairs and technological advances that increase the lethality of the war-fighter. We expend vast energies to increase the potency of our forces in an effort to dominate our adversary. Joint Vision 2010, our doctrinal template for future military operations, calls for us to so dominate the entire scope of the battle-space that, if combat results, our foes are left utterly defeated if not completely paralyzed. We have invested untold resources in examining how to employ our forces most efficiently in the future and we have embraced the virtues of technology and the information revolution. All of this is aimed at establishing “full spectrum dominance”³ and applying the four new operational concepts outlined in Joint Vision 2010 (JV2010) and the Concept for Future Joint Operations (CFJO).

Specifically, Precision Engagement, one of the four cornerstones upon which our future vision rests, relies on exploiting technology to increase the accuracy and economy of weapons. “These (technological) capabilities will increase the combat power available for

¹ Field Marshall Lord Wavell, quoted in Dave Grossman, On Killing. The Psychological Cost of Learning to Kill in War and Society (New York: Little, Brown and Company, 1995), 51.

² Milan Vego, On Operational Art (draft) (not published, ©September 1997), 122.

³ Joint Chiefs of Staff, Concept for Future Joint Operations. Expanding Joint Vision 2010 (Washington, DC: May 1997), 3.

use against selected objectives, resulting in enhanced economy of force and a higher tempo of operations.”⁴

In the quest for unparalleled precision and unmatched tempo in combat operations, however, there are potential pitfalls. Historically, like a piece of the end-state puzzle often left to the bitter end to be solved, we frequently fail to examine the cultural dimensions of our doctrine until after the conflict when friendly force casualties have amassed. These casualties, often referred to as psychiatric casualties, most frequently do not manifest themselves with physical wounds but rather with wounds that are difficult to diagnose and treat. Nonetheless, they hinder our force’s future combat effectiveness. Our vision for the future and its reliance on technology, precision and tempo is a two-edged sword that could cut our own forces just as cleanly as it cuts our foe’s.

This is an examination of potential areas where the cultural significance of Precision Engagement could manifest itself in our forces. By cultural significance what is meant are the non-physical or psychiatric casualties of war. This is not a psychological analysis, but rather an attempt to provoke questions and discussion about our doctrine for future war. The discussion is broken into three main parts: Offensive Issues, Defensive Issues and Tempo.

OFFENSIVE ISSUES

Moral Distances. The interplay between technology, weaponry and operational art has long been a catalyst for change. Long gone are the days of massed armies opposing each other on the field of battle, exchanging volleys of musket fire. We have entered the era of stand-off weapons and increasing physical distances between striker and target. The arrival of GPS-equipped Tomahawk missiles, for instance, has enabled heretofore unrealized levels of accuracy. Improvements in satellite technology and follow-on systems will combine real-time imagery with targeting and guidance data as well as accurate post-strike combat assessment (CA). “*Precision Engagement* is a system of systems that enables our forces to

⁴ Joint Chiefs of Staff, Concept for Future Joint Operations, Expanding Joint Vision 2010 (Washington, DC: May 1997), 11.

locate the objective or target, provide responsive command and control, generate the desired effect, assess our level of success, and retain the flexibility to reengage with precision when required.”⁵ Those who believe we will undergo a revolution in military affairs (RMA) expect that with increased information and precision, US forces will achieve the economy of force and unmatched lethality so sought after in future operations.⁶

Yet despite the myriad of limitations of such an RMA, and as intoxicating an idea as it may be, there are significant cultural and moral effects as well. Indeed, as information flows more freely and accurately to weapons launch platforms, physical distances may be increasing but the moral distance between US forces and enemy forces may be decreasing. It may once again be possible to see “the whites of their eyes.”

A basic assumption in the war of the future is that US forces will achieve mass, in part, by striking operational targets with surgical precision. In order for this to happen, the vast information infrastructure that is an integral part of full spectrum dominance must provide more than just the locations of targets. In an effort to maximize economy of force, it will be necessary to know specific details about the target. This will in part be necessary to orchestrate and coordinate the desired level of precision as well as to justify target selection.

“It is not enough to know how to target buildings or integrated air defense systems in general. Rather, we must know which window/building must be targeted—that is, we must know *why* that room in that building at that time is so important to the enemy and how that specific air defense system will attempt to thwart our missile attack.”⁷

The requirement for that degree of precision stems from the cost of such complex systems, the desire for economy in weapons employment and the combat edge that a superior level of lethality will provide.

⁵ Joint Chiefs of Staff, Concept for Future Joint Operations. Expanding Joint Vision 2010 (Washington, DC: May 1997), 2.

⁶ *Ibid.*, 24.

⁷ Edward A. Smith, Jr., “Putting It Through the Right Window,” Proceedings, June 1995, 39.

The fault in logic occurs when we assume that the forces involved in firing such weapons and ordering or coordinating that "fire" will be remote and relatively untouched by the impact of their precision. Physical distances may be increased, but if the level of processed, end-product information (to include intelligence, imagery and post-strike CA) is available and in use, it will be virtually impossible to insulate the forces from it. In fact, most likely it will be impossible to do their jobs without it. Planners as well as the forces themselves will have near-instant combat assessment. Unprecedented levels of knowledge about the target and its human occupants prior to the strike, could make for a volatile combination. "Our first step in the study of killing is to understand ...the average human being's resistance to killing his fellow man."⁸ Couple this basic human aversion to killing with heretofore-unrealized levels of information about the human targets and the potential exists for a portion of the force to be rendered impotent over time.

Military forces have fought each other for untold centuries and civilian collateral damage has virtually always been a part of war. Yet militaries around the world and especially in the United States are increasing their use of commercial and civilian facilities, equipment and personnel. This raises the level of civilian involvement in war. These developments have occurred coincident with a decreasing world tolerance for noncombatant loss of life. The concern here is the moral dilemma our military leaders face when our enemy's operational targets are found to be commercial facilities with civilian occupants.

The traditional argument is that increased precision will provide for greater accuracy and, therefore, less collateral damage. The drawback, however, is the moral repercussions that can occur when forces knowingly (and obediently) target such facilities and then apprise themselves of their success. Here there is potential for the lines between murder and war to be blurred. With the sophistication of information that a system of systems will provide,

⁸ Dave Grossman, On Killing: The Psychological Cost of Learning to Kill in War and Society (Little, Brown and Company 1995), 2.

physical distances between the forces and their targets may increase, but the moral distance between them may decrease.

Our pursuit of precision and automation in war-fighting may have significant—and negative—impact on what could arguably be the strongest means of support for our military efforts—American will. The capacity of the American people to tolerate the bombing of Japanese and German cities may have long ago passed away. We have, in this half century alone, seen a dramatic decrease in American tolerance for casualties, not only among our own forces but also among those of our adversaries—and particularly amidst noncombatants.

Another potential problem is when those responsible for specific fires know that the occupants of the target never knew the missile, bomb or artillery round was coming. To be a soldier surrounded by one's own forces exchanging fire with the enemy is part of war. Even civilians in the area are aware a battle rages around them and can attempt to protect themselves. All of this changes with the employment of precision, stand-off weapons. The awareness that one has killed with little or no warning to the enemy has potential for significant consequences in terms of its psychological impact on the "shooters". When the killing takes place against military forces, this may not cause great concern. But the real impact may arise when it becomes common knowledge to portions of our forces that they have killed civilians without warning or opportunity for self-defense.

The counter-argument is that with refined information flow, increased precision and improved lethality of future weapons systems, all distances between friendly forces and their targets increase, including moral distance. Future precision weapons would adequately provide a greater buffer between opposing forces and would be in keeping with the trend of weapons development from the musket to the Tomahawk.

There is, however, a moral impact here, too. Specifically, this trend implies a level of increasing automation in war-fighting. There are two possible concerns. The first concern arises when the level of automation lessens the ugliness of killing. Forces that unthinkingly engage and destroy targets with no compunction can become like automatons themselves.

While combat effectiveness is improved and the battle-space unquestionably more lethal, the moral cost of war is diminished.

The second concern comes about when in planning for the use of force, the assumption is made that all-out war is more sophisticated and automated than it once was; that it is somehow less costly. In this case, war has “evolved.” The aftermath of an erroneous assumption here is grave. Consider, for instance, the soldiers that are unexpectedly forced to take the field of battle in large numbers after having been told that the evolution of war-fighting would not rely as heavily on their being there. Plans for their employment in an increasingly lethal battle-space may be crisis managed rather than honestly assessed.

When US Forces Can't Miss. There is strong evidence to suggest that throughout history, a substantial percentage of soldiers in combat revert to “posturing” when faced with an enemy. This posturing includes various forms of behavior, but the most substantial one for the Joint Force Commander (JFC) is the unwillingness to shoot to kill. The combatant forces fire but do not place their fire such that it is lethal. “Note the very nature of such a ‘conspiracy to miss.’ Without a word being spoken, every soldier who was obliged and trained to fire reverted—as millions of others must have over the centuries—to the simple artifice of soldierly incompetence.”⁹

This “soldierly incompetence” seems to be a necessary tool for survival in combat for a substantial percentage of the forces. While the noise of battle serves to signal one's intentions to the enemy, it is ultimately the act of capturing territory that leads to victory. If indeed it is true that for centuries, forces have been firing to miss, then countless battles and wars have been won while forces have not been as efficient at killing as may have been thought. What happens when forces are denied their ability to miss? In essence, the use of precision weaponry denies the soldier a vital mechanism used to cope with combat.

⁹ Dave Grossman, On Killing. The Psychological Cost of Learning to Kill in War and Society (New York: Little, Brown and Company 1995), 15.

Even more illuminating is evidence that strongly suggests there are vast numbers of soldiers who choose not to fire at all. Though controversial, several works have gone on to corroborate the study of World War II soldiers by S. L. A. Marshall. He writes:

“In an average experienced infantry company in an average stern [hard] day’s action, the number engaging with any and all weapons was approximately 15 per cent of total strength. In the most aggressive infantry companies, under the most intense local pressure, the figure rarely rose above 25 per cent of total strength from the opening to the close of action.”¹⁰

This makes a compelling argument that in concert with the human aversion to killing, soldiers have exhibited the need to be sure they are not directly responsible for the loss of human life.

The concern for the operational commander and the developers of operational doctrine is that with the evolution of future weapons systems, we may be denying forces of their need to miss or not even fire at all.

The counter-argument is that forces who miss or choose not to fire at all have always been a part of war. There is always going to be, therefore, a natural compensation for such effects in war. This may indeed be true. There is also evidence to support that when forces are firing in groups such as those in artillery teams, tank crews, combat aircraft crews and ships, they fire without hesitation due in part to their accountability before those around them. The precision warrior of the future may be more a part of a small team than ever before and the accountability before peers may prevent the future warrior from missing the target or not firing at all. Nonetheless, it is difficult and potentially unwise to ignore or discount too heavily the evidence presented by Marshall, Grossman, Dyer and others. This demonstrated need to be physically disconnected from killing may be something that future operational doctrine is ill-equipped to address.

DEFENSIVE ISSUES

¹⁰ S.L.A. Marshall, Men Against Fire, The Problem of Battle Command in Future War (Washington: The Infantry Journal and New York: William Morrow & Company, 1947), 56.

“While our advanced technology provides US forces with many advantages, we can expect future adversaries to actively and passively exploit technology to improve their military capability and to counter US military strength. Global interaction, for example, provides a regional power the potential to accelerate its development as a peer competitor without the buildup signals and warning time expected in the past.”¹¹

The technologies we will exploit to achieve full spectrum dominance are increasingly commercially available, civilian technologies that are not necessarily being developed and purchased for exclusive use by US military forces. While some of these technologies are proprietary in nature and are available only to US forces, the overarching notion that we will be able to partition a significant amount of technology for exclusive use by US forces is faulty. In essence, technology only remains revolutionary for a finite period of time and the days are fast approaching when technologies we are developing, purchasing and sponsoring will be used against our own forces. Further, the assumption that emerging technologies will remain secret and unexploitable is also faulty. “No innovation in warfare stays a surprise for very long.”¹²

The moral and cultural effects of these facts lie in the response of our forces to being targeted by precision weapons. There are at least two issues to be concerned with when our forces are the target of precision weapons and advanced technology. The first issue stems from man’s innate desire to defend himself and the result of our forces knowing they are in an increasingly lethal battle-space. The second issue arises from an increasingly dispersed battle-space and the isolation that can result from enemy exploitation of our high-technology command and control systems.

Pre-conflict apprehension. “It is hard to exaggerate the degree of stress imposed by this feeling of pre-contact apprehension, which usually occurs with varying intensity, before every battle in which a soldier participates.”¹³ There is little need to acknowledge the natural

¹¹ Joint Chiefs of Staff, Concept for Future Joint Operations, Expanding Joint Vision 2010 (Washington, DC: May 1997), 14.

¹² Gwynne Dyer, War (New York: Crown Publishers, Inc. 1985), 88.

¹³ Richard Holmes, Acts of War (New York: The Free Press 1985), 139.

apprehension that a soldier, sailor, airman or marine faces before going into combat. This part of war is as old as war itself. The fear arises from a variety of things such as fear of injury or fear of failing to perform as he or she should.¹⁴ In the case of war on the scale of Joint Vision 2010 and the Concept for Future Joint Operations, the pre-contact fear may be a more significant factor than in previous conflicts. With increased precision and lethality in the battle-space, forces may exhibit greater levels of anxiety before entering combat. This will add to the stress of combat and could accelerate the onset of emotional fatigue or psychiatric casualties.

In battle. To a degree, psychiatric casualties due to war have, like pre-conflict apprehension, always been a part of battle. What is revealing, however, is that as weapons technology improves and logistics capability increases, battles can be sustained for longer periods of time. The result is that “our physical and logistical capability to sustain combat has completely outstripped our psychological capacity to endure it.”¹⁵ We are developing doctrine and weapons that will enable us to use increased lethality to our advantage, but the byproduct of such developments is that a portion of the doctrine and weaponry may be staring back at our forces.

A counter-argument is that, like Desert Storm, the JV2010 war will not last long, especially if current doctrinal templates are fulfilled. On-the-other-hand, it took 6 months to amass enough forces to convincingly defeat Iraq. Further, it is dangerously naive to hold to the notion that Desert Storm was like all the wars we will fight in the future.

Dispersion and isolation. “Increasingly nonlinear, widely dispersed, autonomous operations in the 2010 battlespace could create a sense of loneliness and fear that is unparalleled in previous conflicts.”¹⁶ Increasing the dispersion of the future battle-space will

¹⁴ Ibid., 141.

¹⁵ Dave Grossman, On Killing. The Psychological Cost of Learning to Kill in War and Society (New York: Little, Brown and Company 1995), 45.

¹⁶ Joint Chiefs of Staff, Concept for Future Joint Operations. Expanding Joint Vision 2010 (Washington, DC: May 1997), 18.

have enormous impact on US forces. Studies and analysis have shown that forces in combat rely on mutual support not just physically but psychologically. Man's gregarious nature combined with the ever-present danger of combat compel him to gather in groups. The need for mutual support is strong and when it is provided, forces can accomplish far more than mere numbers would indicate.¹⁷ There is not just a *desire* to gather; there may be, in fact, like self-defense, a *need* for it. As we increasingly disperse the battle-space, we eliminate what may be a basic survival need for combat.

The increasingly dispersed battle-space will rely heavily on technology to maintain basic command and control functions. This too, can present vulnerabilities that will increase the combat isolation. Should opponents achieve success in exploiting our technological vulnerabilities, not only will our forces be physically more susceptible to attack, but they will be forced to endure greater psychiatric stress and attack as well. The isolation brought about by loss of communications and connectivity with other forces could hinder our forces significantly.

TEMPO

Tempo has both offensive and defensive ramifications. What is meant by tempo here is the dizzying pace of warfare prescribed in Joint Vision 2010 and the Concept for Future Joint Operations. "The overall objective is the capability to set and maintain a tempo of operations that outmatches any opponent, allowing the JFC to dominate the action, remain unpredictable, and operate beyond the enemy's ability to react."¹⁸ High tempo operations through weaponry and advanced technology may potentially be the most taxing aspect of Precision Engagement. More than ever before, war-fighting takes place around the clock. Current technologies allow us to see in the dark and massive effort was put forth at night during operation Desert Storm. It may even be argued that the Iraqi surrender was

¹⁷ Richard Holmes, *Acts of War* (New York: The Free Press 1985), 158-159.

¹⁸ Joint Chiefs of Staff, *Concept for Future Joint Operations, Expanding Joint Vision 2010* (Washington, DC: May 1997), 64.

accelerated due, in part, to their being denied sleep over the course of the six week air phase of the war. "The problem of mental and physical exhaustion, for both commanders and those they command, may well be exacerbated in the future by increased technical capacity for sustained operations."¹⁹

What previous wars have taught us is that forces require rest. It is not just sleep, but rest from combat that enables them to return to combat as effective forces. "Conditioned warriors, healthy and reasonably rested can persevere even under harsh conditions."²⁰ The concern for the future JFC is the adequacy and frequency of rest that forces will receive in light of the emerging operational concepts in Joint Vision 2010. "A new dimension of combat stress...involved what Israeli psychologists termed 'combat reactions.'"²¹ Combat reactions are soldiers responses such that their combat effectiveness is severely debilitated. The combat reactions referred to, seem to occur within three weeks of exposure to combat.

What is most valuable from this is that these combat reactions resulted not from the amount of time soldiers were exposed to combat but from the intensity of the combat operations.²² The Israelis also found that soldiers "moving rapidly between noncombat and combat environments" were subjected to very severe stress.²³ Soldiers were reported to exhibit symptoms resembling drunkenness and disorientation. The key is that there is a direct link between the level of psychiatric casualty and the intensity of combat operations. The nugget that the future JFC needs to take from this is that the very intensity and tempo we are striving so hard to achieve, may be one of the most debilitating aspects of our future operational concepts.

CONSIDERATIONS

¹⁹ Anthony Kellet, Combat Motivation. The Behavior of Soldiers in Battle (Boston: Kluwer, Nijhoff Publishing 1982), 238.

²⁰ Joint Chiefs of Staff, Concept for Future Joint Operations. Expanding Joint Vision 2010 (Washington, DC: May 1997), 18.

²¹ Anthony Kellet, Combat Motivation. The Behavior of Soldiers in Battle (Boston: Kluwer, Nijhoff Publishing 1982), 331.

²² Ibid., 331.

²³ Ibid., 331.

Recommendations to improve or address the issues discussed here are not easy to arrive at nor are they easy to implement. Nonetheless, it is apparent that the whole complexion of the battle-space may change dramatically with the employment of new technology and weapons. There are two considerations that may help to integrate the degree to which warfare is changed with the impact it can have on the warriors.

First, we must approach the development of future doctrine and technology skeptically, critically and from a human not warrior perspective. Battle plans, campaign plans and operational concepts will naturally evolve from coordinating forces with weapons and technology. Man has been planning for and conducting war for centuries. What is relatively new, however, is a scientific approach to examining human performance in combat in light of the nature of the war. New planning systems are continually being developed and refined. What is difficult to quantify and therefore incorporate in these plans is the effect of the changing face of the battle-space on the warrior.

Second, we must continue to build on the tried and true principles of superior training, unit cohesion and responsible, inspirational combat leadership. Marshall, Grossman and Holmes all found in their analyses that, though the particulars of basic training or unit cohesion change, people perform well in combat when they are well trained and well led. This should force a close examination of how to best alter training and provide for unit cohesion to adapt the 2010 warrior to the nature of the battle-space. Yet it is precisely the examination of these issues that will incorporate an effective warrior with superior technology and weapons and allow him or her to survive in combat.

CONCLUSION

The difficulty in quantifying the cultural impact of precision warfare must not obviate the need to understand it and incorporate it into future plans. Regardless of the difficulty in predicting or planning for psychiatric casualties, it is these casualties that stand to have the greatest impact on our 2010 forces. US forces are the best trained and equipped forces in the world. Yet the battle-space of the future presents many unknowns. As doctrine grows from

the templates of Joint Vision 2010 and the Concept for Future Joint Operations it is imperative that we continually examine the impact of future war-fighting on the warrior. "The intellectual tools, physical skills, and motivation of our Soldiers, Sailors, Airmen, Marines and Coastguardsmen have been essential to our current preeminence, and will be even more important as we move into the 21st century."²⁴

²⁴ Joint Chiefs of Staff, Concept for Future Joint Operations, Expanding Joint Vision 2010 (Washington, DC: May 1997), 73.